

IN THE CLAIMS:

Please cancel Claims 1, 5, 7 to 9, 11 to 13 and 15 to 22 without prejudice or disclaimer of subject matter and add new Claims 23 to 26 as shown below.

1. to 22. (Canceled)

23. (New) An electrode material for a lithium secondary battery, comprising particles of a solid state alloy having silicon as a main component, wherein the solid state alloy comprises 50 weight % or higher to 95 weight % or lower of at least one alloy represented by Si-A-E ( $A \neq E$ ), where A is a first element of at least one element selected from the group consisting of tin, aluminum, and zinc, E is a second element of at least one element selected from the group consisting of copper, silver, zinc, titanium, aluminum, vanadium, yttrium, zirconium, and boron, atomic ratios of the first element A and the second element E in the Si-A-E is lower than atomic ratio of silicon, and the atomic ratio of the first element A is higher than the atomic ratio of the second element E,

wherein the alloy contains a pure metal or a solid solution including an element selected from the group consisting of the first element A and the second element E, and

wherein the particles of the solid state alloy have a structure in which a microcrystal or an amorphous of the pure metal or the solid solution including an element selected from the group consisting of the first element A and the second element E is dispersed in a microcrystalline silicon or an amorphous silicon, and the particles of the

solid state alloy contain an eutectic including at least two elements selected from the group consisting of silicon, the first element A and the second element E.

24. (New) The electrode material according to claim 23,  
wherein the particles of the solid state alloy are in the form of a powder, and  
an uppermost surface of the powder is covered with an oxide film to prevent the powder  
from reacting with oxygen, and  
wherein the oxide film has a thickness in the range of 2 to 10 nm and  
comprises an oxide of an element selected from the group consisting of aluminum,  
titanium, vanadium, yttrium, and zirconium.

25. (New) An electrode structure comprising an electrode material  
according to claim 23, a conductive auxiliary material, a binder and a current collector.

26. (New) A secondary battery comprising an electrolyte, a positive  
electrode and a negative electrode using an electrode structure according to claim 25,  
wherein the secondary battery utilizes a lithium oxidation reaction and a lithium ion  
reduction reaction.